



## **Red River Army Depot Achieves Higher Standards For Repaired Vehicles**

*Enhancing Reliability and Decreasing Life  
Cycle Cost of Reset Humvees*

The High Mobility Multipurpose Wheeled Vehicle (HMMWV or Humvee) is typically returned to Red River Army Depot (RRAD) for one of two things: Recap (Recapitalization) or Reset. Recap is a thorough repair process, an overhaul of the entire vehicle to ensure full operability. Resetting focuses only on what is inoperable and needs fixing. While seemingly smaller in scope, Reset is inefficient, using large amounts of floor space, forcing a longer repair cycle time, and driving up costs.

Tim Perkins, the Tactical Division Chief at RRAD, decided to put his Lean Six Sigma (LSS) Green Belt training to use when he noticed that Humvees that had gone through the Reset process often eventually appeared in Recap due to other mechanical problems. Perkins and his staff believed a great deal of time and money could be saved if Reset Humvees were dispatched to the Recap line to leverage its speed, productivity, and quality. The costs to maintain Reset Humvees, argued Perkins, would decrease because the mean miles

between repairs would ultimately increase, because reliability would be improved. The long-term benefits would far outweigh the time spent fixing the vehicles.

Mr. Perkins, who served in the Army for over 22 years, employed a plan of action to convert the 'Inspect and Repair' Reset process to an Overhaul process. Between August 2006 and June 2007, they implemented new requirements, trained mechanics, tested the process, and accomplished the mission - all in less than one year.

The results won RRAD a 2007 Shingo Prize for Excellence in Manufacturing. Today, Reset Humvee quality has improved due to a decrease in product variation. The production output of the Humvee has risen substantially from 30 per week to 160 per week, with man hours per unit dropping from 298 to 224. A projected cost avoidance of \$37 million was also reached in 2007.

Tim Perkins firmly believes that thanks to LSS training and a customer-oriented philosophy, the Army can now "build any vehicle to be a more efficient, more reliable, and cost effective product for our Soldiers." As a result, the revamped system of operations is much better equipped to serve our nation's Warfighters.